Imagine the consternation that would arise if the PPC of a P-3 crew walked up to the maintenance officer and announced...

We Just Spun It

February 1974

Approach writers (mostly gray-haired old fudds), have become pretty calloused over the years. Whatever unusual tricks that can be done in aircraft, they have either done themselves, know someone who has, or have read about it in an incident report or AAR.

Every now and then, the quiet in the writer's room is blasted by someone who scans a message and announces to all, "Listen! You'll never believe this!"

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What follows depends on the absurdity of the communiqué. Naturally, not all mishaps are absurd. Some are sad. Some are stupid. Others, unbelievable.

It happened on a beautiful spring day. The weather was great—temperature warm, skies cloudless, visibility 15 plus. A P-3 was airborne on a PUI (pilot under instruction) training flight. A ditching drill initiated by a simulated uncontrollable fire in the No. 1 engine had been conducted (No. 1 engine was actually feathered), using 4,500 feet as simulated sea level.

Upon completion of the drill, the PUI added power on 3 engines and climbed to 4,800 feet. Power was reduced to flight idle on No. 2, with No. 1 still feathered, to simulate the 2-engine out condition.

The PUI eased the aircraft down to 4,500 feet, dropping gear and full flaps. As he reached base altitude, he asked for full power on No. 3 and No. 4 to wave off. His airspeed was 125 knots. The aircraft began a left turn that could not be stopped with aileron and rudder.

The IP pointed out that the aircraft was below Vmc air. To demonstrate recovery, he reduced power on No. 4, and the P-3 returned to a wings-level attitude. (Naturally, the airspeed bled off to 115-120 knots.) The pilot under instruction called for gear up and approach flaps. (Airspeed 110 KIAS.) The IP then took over to lower the nose, but not before the aircraft slowed to 105 knots, at which time a moderate airframe buffet began. The Orion "departed"—100,000 pounds of patrol plane! The aircraft steadily and rapidly rolled left to a 90-degree bank, and the nose fell through in an almost vertical, nosedown attitude—still rolling left. Wow!

The IP pulled power back, leveled the wings after about 360 degrees of roll, and completed his pullout at 1,500 feet. He added power, brought No. 1 back on the line, and scooted for Homeplate.

Postflight inspection disclosed a +2.6G and a -.8G reading on the flight station accelerometer. A thorough inspection of the aircraft revealed only a slight buckle on the starboard forward wing fuselage fillet at station 534. Also, there was a slight wave-type buckle in the leading edge fillet, inboard side of No. 4 engine. There were no popped rivets, and no other structural damage was discovered. The inspectors could not determine if the buckles were caused by this incident.

The PUI's failure to maintain sufficient airspeed resulted in the stall and subsequent departure from controlled flight. Contributing to the unusual sequence of events was dropping below Vmc air with an engine feathered.

This incident did not end in disaster because the IP properly executed unusual-attitude recovery techniques. Further, he had the foresight to have performed the instruction at an altitude twice the "legal" limit. The "legal" limit now, a promulgated in a recent P-3 NATOPS change, is a 4,000-foot altitude for 2-engine out practice (except in the landing pattern) and for ditching drills. Engines will not be feathered during maneuvers.

(The most important aspect of this incident is the fact that it was reported. It takes a big man to tell the world "I goofed."—Ed.)

Let's see what a similar situation looked like. This flight was to be a combination postmaintenance check (after a prop valve housing change) and a PP2P NATOPS check flight. One hour after departure, P-3 debris was sighted floating offshore by another crew.

Underwater television revealed the tail was intact, with most control surfaces undamaged. Numerous major components were recovered, such as engines, props, flaps, copilot's overhead instrument panel, and landing rear.

Careful examination disclosed 3 engines had been operating normally, but No. 4 had been feathered. Further, flaps were down and the gear was up. Indications were that the Orion hit the water hard, relatively slow, and in a right-wing down, nose-low attitude. The mishap board concluded that the most probable cause was loss of control or stall while conducting a low-attitude, slow-speed ditching drill.

The similarity between the two instances is marked. Once again in multiengine aircraft, the question of caliber of instruction and instruction technique arises. In the September '72 *Approach*, the article "What, Why, and How" addressed the problem of instruction in operating squadrons. One of the main points in any kind of aircraft instruction is reiteration of a basic aerodynamic principle—maintain airspeed. THE INSTRUCTOR PILOT MUST NOT RELAX HIS GUARD FOR A SECOND. ◄